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Abstract

In Denmark, American mink (*Neovison vison*) are bred for their fur, and Denmark is currently one of the largest producers of mink skins. Moreover, feral mink populations are common in Denmark, but they are regarded as an invasive species originating from farm escapes. The zoonotic parasite *Toxoplasma gondii* has a wide host range, including mink. A Danish study from 1994 observed 3% sero-positive farmed mink by latex agglutination test. However, the literature on *T. gondii* in mink is generally scarce, and to our knowledge, no studies on *T. gondii* in feral, Danish mink have been carried out. *Toxoplasma gondii* infections in mink might be of public health importance, when dead mink are handled. This study examined the antibodies against *T. gondii* in feral- and farmed mink. In total, 112 farmed mink submitted for diagnostic examination, and 228 feral mink sampled by Danish hunters were included in the study. At necropsy, the heart was removed and stored at -20°C until analysis. Meat juice was extracted from the hearts when thawed and analyzed for anti-*T. gondii* antibodies using a commercial indirect ELISA. None of the farmed mink were sero-positive, while 50.5% of the feral mink were sero-positive. Of the positive feral mink, 13.4% (15/112) had fur colors other than brown, indicating a recent escape from farms. Significantly (p=0.0002) more feral male (63.5%) than female (36.2%) were sero-positive. In consideration of the results, precautions should be taken when handling feral mink. In contrast, handling farmed mink, pose a neglectable risk of acquiring *T. gondii* infections.